

C. Fronda

D.J.

1652

#9

3-18-00

Sequenced/checked
DATE: 02/10/2000
TIME: 14:56:06

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/358,103B

Input Set: I358103B.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

fs

ENTERED

1 <110> APPLICANT: Roca, Alberto I
2 <120> TITLE OF INVENTION: Mutants of Maw Motifs of RecA Protein Homologs, Methods
3 of Making Them, and Their Uses
4 <130> FILE REFERENCE: RecA Homolog Protein & Mutants
5 <140> CURRENT APPLICATION NUMBER: US/09/358,103B
6 <141> CURRENT FILING DATE: 1999-07-21
7 <150> EARLIER APPLICATION NUMBER: 60/094,071
8 <151> EARLIER FILING DATE: 1998-07-24
9 <160> NUMBER OF SEQ ID NOS: 3
10 <170> SOFTWARE: PatentIn Ver. 2.0
11 <210> SEQ ID NO 1
12 <211> LENGTH: 26
13 <212> TYPE: PRT
14 <213> ORGANISM: Escherichia coli
15 <220> FEATURE:
16 <221> NAME/KEY: NON_TER
17 <222> LOCATION: (1)
18 <220> FEATURE:
19 <221> NAME/KEY: NON_TER
20 <222> LOCATION: (26)..)
21 <220> FEATURE:
22 <221> NAME/KEY: HELIX
23 <222> LOCATION: (6)..(12)
24 <223> OTHER INFORMATION: Alpha-helix B
25 <220> FEATURE:
26 <221> NAME/KEY: STRAND
27 <222> LOCATION: (22)..(26)
28 <223> OTHER INFORMATION: Beta-strand 1
29 <220> FEATURE:
30 <221> NAME/KEY: SIMILAR
31 <222> LOCATION: (1)..(26)
32 <223> OTHER INFORMATION: This structure is highly conserved across
33 bacterial RecA and homologous eukaryotic,
34 archaeal, and viral proteins; sequence below is
35 from E. coli RecA positions 40-65
36 <400> SEQUENCE: 1
37 Ile Ser Thr Gly Ser Leu Ser Leu Asp Ile Ala Leu Gly Ala Gly Gly
38 1 5 10 15
39 Leu Pro Met Gly Arg Ile Val Glu Ile Tyr
40 20 25
41 <210> SEQ ID NO 2
42 <211> LENGTH: 26
43 <212> TYPE: PRT
44 <213> ORGANISM: Escherichia coli

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45 <220> FEATURE:
46 <221> NAME/KEY: NON_TER
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48 <220> FEATURE:
49 <221> NAME/KEY: NON_TER
50 <222> LOCATION: (26)
51 <220> FEATURE:
52 <221> NAME/KEY: HELIX
53 <222> LOCATION: (6)..(12)
54 <223> OTHER INFORMATION: Alpha-helix B
55 <220> FEATURE:
56 <221> NAME/KEY: STRAND
57 <222> LOCATION: (22)..(26)
58 <223> OTHER INFORMATION: Beta-strand 1
59 <220> FEATURE:
60 <221> NAME/KEY: SIMILAR
61 <222> LOCATION: (1)..(26)
62 <223> OTHER INFORMATION: Non 'Xaa' residues are the invariant MAW-motif
63 residues in RecA and its homologs
64 <220> FEATURE:
65 <221> NAME/KEY: SITE /
66 <222> LOCATION: (1)
67 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
68 and has observed to contain Ile, Phe, Met, Thr,
69 Val, Tyr, or Leu
70 <220> FEATURE:
71 <221> NAME/KEY: SITE
72 <222> LOCATION: (2) /
73 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
74 and has been observed to contain Ser, Gly, Lys,
75 Pro, Thr, or Arg
76 <220> FEATURE:
77 <221> NAME/KEY: SITE
78 <222> LOCATION: (3) /
79 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
80 and has been observed to contain Thr, Ser, or Trp
81 <220> FEATURE:
82 <221> NAME/KEY: SITE /
83 <222> LOCATION: (4)
84 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
85 and has been observed to contain Gly, Arg, Ala,
86 Lys, Asn, or Gln
87 <220> FEATURE:
88 <221> NAME/KEY: SITE
89 <222> LOCATION: (5) /
90 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
91 and has been observed to contain Ser, Ala, Cys,
92 Ile, Asn, Asp, or Phe
93 <220> FEATURE:
94 <221> NAME/KEY: SITE

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95 <222> LOCATION: (6) /

96 <223> OTHER INFORMATION: This site is not invariant across RecA homologs

97 and has been observed to contain Leu, Ile, Thr,

98 Val, Tyr, Lys, Gln, Asp, Pro, or Arg

99 <220> FEATURE:

100 <221> NAME/KEY: SITE

101 <222> LOCATION: (7) /

102 <223> OTHER INFORMATION: This site is not invariant across RecA homologs

103 and has been observed to contain Ser, Ala, Asp,

104 Gly, Leu, Met, Thr, Val, Tyr, Glu, Asn, or Gln

105 <220> FEATURE:

106 <221> NAME/KEY: SITE

107 <222> LOCATION: (8) /

108 <223> OTHER INFORMATION: This site is not invariant across RecA homologs

109 and has been observed to contain Leu, Ile, Val,

110 Phe, or Met

111 <220> FEATURE:

112 <221> NAME/KEY: SITE

113 <222> LOCATION: (9) /

114 <223> OTHER INFORMATION: This site is not invariant across RecA homologs

115 and has been observed to contain Asp or Asn

116 <220> FEATURE:

117 <221> NAME/KEY: SITE

118 <222> LOCATION: (10) /

119 <223> OTHER INFORMATION: This site is not invariant across RecA homologs

120 and has been observed to contain Ile, Ala, Glu,

121 Gly, Leu, Asn, Gln, Arg, Ser, Thr, Val, Lys, or

122 Asp

123 <220> FEATURE:

124 <221> NAME/KEY: SITE

125 <222> LOCATION: (11) /

126 <223> OTHER INFORMATION: This site is not invariant across RecA homologs

127 and has been observed to contain Ala, Ile, Leu, or

128 Val

129 <220> FEATURE:

130 <221> NAME/KEY: SITE

131 <222> LOCATION: (12) /

132 <223> OTHER INFORMATION: This site is not invariant across RecA homologs

133 and has been observed to contain Leu, Met, or Thr

134 <220> FEATURE:

135 <221> NAME/KEY: SITE

136 <222> LOCATION: (13) /

137 <223> OTHER INFORMATION: This site is not invariant across RecA homologs

138 and has been observed to contain Gly, Gln, Ala,

139 Asn, or Ser

140 <220> FEATURE:

141 <221> NAME/KEY: SITE

142 <222> LOCATION: (14)

143 <223> OTHER INFORMATION: This site is not invariant across RecA homologs

144 and has been observed to contain Ala, Ile, Ser,

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RAW SEQUENCE LISTING
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145 Thr, Val, Gly, or Leu, and this site is not
146 present in some homologs
147 <220> FEATURE:
148 <221> NAME/KEY: SITE
149 <222> LOCATION: (17)
150 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
151 and has been observed to contain Leu, Phe, Ile,
152 Val, Tyr, or Met
153 <220> FEATURE:
154 <221> NAME/KEY: SITE
155 <222> LOCATION: (18)
156 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
157 and has been observed to contain Pro, Glu, Met,
158 Phe, Gln, Arg, or Val
159 <220> FEATURE:
160 <221> NAME/KEY: SITE
161 <222> LOCATION: (19)
162 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
163 and has been observed to contain Met, Gly, Lys,
164 Arg, Thr, Ala, Pro, or Ser
165 <220> FEATURE:
166 <221> NAME/KEY: SITE
167 <222> LOCATION: (20)
168 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
169 and has been observed to contain Gly, Leu, Met,
170 Ala, His, Gln, or Arg
171 <220> FEATURE:
172 <221> NAME/KEY: SITE
173 <222> LOCATION: (21)
174 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
175 and has been observed to contain Arg, Gln, Ser,
176 Gly, Thr, or Val
177 <220> FEATURE:
178 <221> NAME/KEY: SITE
179 <222> LOCATION: (22)
180 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
181 and has been observed to contain Ile, Val, Ala,
182 Leu, or Met
183 <220> FEATURE:
184 <221> NAME/KEY: SITE
185 <222> LOCATION: (23)
186 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
187 and has been observed to contain Val, Ile, Thr, or
188 Tyr
189 <220> FEATURE:
190 <221> NAME/KEY: SITE
191 <222> LOCATION: (25)
192 <223> OTHER INFORMATION: This site is not invariant across RecA homologs
193 and has been observed to contain Ile, Val, Ala,
194 Leu, Met, or Phe

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[illegible]

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION US/09/358,103B

DATE: 02/10/2000

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Input Set: I358103B.RAW

Line	Error/Warning	Original Text
202 W	"N" or "Xaa" used: Feature required	Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa X
204 W	"N" or "Xaa" used: Feature required	Xaa Xaa Xaa Xaa Xaa Xaa Xaa Glu Xaa Xaa
301 W	"N" or "Xaa" used: Feature required	Ile Xaa Thr Gly Xaa Xaa Xaa Leu Asp Xaa A
303 W	"N" or "Xaa" used: Feature required	Leu Xaa Xaa Gly Xaa Ile Val Glu Ile Tyr